

FLOWERS AND FERNS OF THE DELLS OF THE WISCONSIN.—The collections of Parry, who accompanied David Dale Owen in his geological reconnaissance of the Upper Mississippi and its tributaries, indicated that there were in Central Wisconsin, besides the local flora, plants of the Atlantic Coast—since extended botanically to the beaches of the Great Lakes—of the Southern States and of the far Northwest. The indefatigable labors of the lamented T. J. Hale and Dr. I. A. Lapham have confirmed the supposition in a general way, so far as it relates to the larger rivers of Wisconsin flowing westward. During the summer just passed we spent two weeks on and near the Dells of the Wisconsin, and while the principal object of our visit was not botanical, we believe our notes have sufficient interest to collectors elsewhere to repay the trouble of editing them. We have aimed at completeness only with the ferns, attempting further to give only a good idea of the characteristic vegetation. The time of our visit was August.

FLOWERS.—1. *Corydalis glauca*, Pursh. Common enough on the more exposed rock, but never found by us on the limestone in Southern Wisconsin, where we have collected for several years.

2. *Arabis petraea*, Lam. Very common, growing with *Sullivantia* on most shaded rocks.

3. *Hudsonia tomentosa*, Nutt. Near the railroad bridge at Kilbourn City. Nearly smooth and few-flowered stems.

4. *Mollugo verticillata*, L. So thoroughly established everywhere that it is difficult to believe it an immigrant.

5. *Tulinum teretifolium*, Pursh. A large patch on the sand back of Allen's House. Our specimens nearly destroyed by growth in the portable press. With it, in abundance, was the fungus *Geaster hygrometricus*, Pers.

6. *Potentilla fruticosa*, L. Grows everywhere on the rock at the Dells, sometimes fifty feet above the water.

7. *Rubus* species, *triflorus*, Richardson; *strigosus*, Michx.; *occidentalis*, L.; *villosus*, Ait.; *Canadensis*, L. All common. Blackberries were worth only \$1.25 per bushel.

8. *Sullivantia Ohionis*, Torr. and Gray. Quite common, especially in the side glens.

9. *Heuchera hispida*, Pursh., is also very common on the moist rocks, and was in blossom, while the smoother plants of the prairies south had been in fruit for several weeks.

10. *Hamamelis Virginica*, L. Common.

11. *Aralia hispida*, Michx. A large patch in fruit on the rock over the Cave of the Dark Waters.

12. *Linnæa borealis*, Gronov. Only seen in the woods at Gates' Ravine.

13. *Campanula rotundifolia*, L. Common.

14. *Gaylussacia resinosa*, Torr. and Gray. Very common. Berries worth only \$1.50 per bushel.

15. *Vaccinium Pennsylvanicum*, Lam. Very common. Berries worth only \$1.00 per bushel.

16. *Epigæa repens*, L. Very common.

17. *Gaultheria procumbens*, L. Very common. This and the three preceding are also found in Southern Wisconsin wherever there is any considerable outcrop of sandstone, such places being known in all the regions around as Wintergreen Hills, etc.

18. *Chimaphila umbellata*, Nutt. Very common. Plants here indicate a very close approximation of "cold, damp" and "dry" woods.

19. *Verbena stricta*, Vent. Common on the sand plains near the river. *V. bracteosa*, Michx., grows everywhere with it.

20. *Monarda punctata*, L. Very common on the sand.

21. *Fralichia Floridana*, Moquin. Very abundant on the sand above Sugar Bowl.

22. *Comptonia asplenifolia*, Ait. Very common on the sand plains near Kilbourn City and on the more barren rock.

23. *Betula papyracea*, Ait. Very common.

24. *Pinus Banksiana*, Lambert. Common on the sandy plains. Known as "Jack Pine."

25. *Pinus Strobus*, L. Growing here, but the Dells are south of the "pine regions" of Wisconsin.

26. *Abies Canadensis*, Michx. Very common.

27. *Habenaria Hookeri*, Torr. Not uncommon with *Linnaea*, *Mitchella*, etc. In fruit, but the blossoms not yet fallen.

Compositæ were not at all abundant, but we notice *Liatris cylindracea*, Michx., and *Aster æstivus*, Ait., on the rock opposite Gates' Ravine.

FERNS.—1. *Polypodium vulgare*, L. Very common.

2. *Adiantum pedatum*, L. Quite common.

3. *Pteris aquilina*, L. Quite common.

4. *Pellaea atropurpurea*, Link. On Sugar Bowl, Steamboat Rock, and similar rocks. As thrifty on the sandstones as when growing on the calcareous rock of Southern Wisconsin.

5. *Asplenium Trichomanes*, L. Very common.

6. *Asplenium thelypteroides*, Michx. Not uncommon.

7. *Phegopteris Dryopteris*, Fee. Very common in the side glens.

8. *Aspidium fragrans*, Swartz. This fern, first found within the limits of the United States by Dr. Parry, is not rare on the Wisconsin.

9. *Aspidium spinulosum*, Swartz. The specimens we saved are not of the type, nor, with certainty, either of the varieties, for the scales of the stipe are entirely brown, but the lobes of the pinnules are spinulose, and not obtuse. Is not this another of the many plants where the so-called "varieties" are merely forms with individual instead of local peculiarities.

10. *Aspidium marginale*, Swartz. Very common.

11. *Cystopteris bulbifera*, Bernh. Not common.

12. *Cystopteris fragilis*, Bernh. Exceedingly common and variable.

13. *Onoclea sensibilis*, L. Not common.

14. *Woodsia ilocensis*, R. Brown. The most common rock fern of the Dells.

15. *Osmunda regalis*, L. Common in the glens.

16. *Osmunda Claytoniana*, L. The common fern of the glens.

17. *Botrychium Virginicum*, Swartz. Common.

18. *Ceanothorus rhizophyllus*, Link. This undoubtedly grows here, as we have found it on the sandstone further south.

Growing with the ferns is *Lycopodium lucidulum*, Michx.—HERBERT E. COPELAND.

THE INTRODUCTION OF FOREIGN PLANTS.—The subject of the introduction of foreign plants is one of interest to botanists in all sections of the country, and is gradually becoming more so as the geographical distribution of species is being carefully investigated. There are various ways by which this may be effected, and as it can not be told when nor how it may occur, it behooves all lovers of science to keep wide awake, carefully noting the advent of hitherto strangers in Flora's household. The agency of wind is a powerful one in this regard, particularly with respect to that large order, *Compositæ*, the seeds of many of which are furnished with a feathery pappus, and are often carried through the air long distances and deposited on the sides of high mountains, or in the depths of low fertile plains, oftentimes a very different location from the usual *habitat*. The flight of birds, doubtless, furnishes one of the most powerful agencies, as their migration, especially near the coast, is sufficiently rapid to carry seeds that will germinate when a proper condition is found. In the southern counties of New Jersey